

Frequently Asked Questions and Answers on Total Maximum Daily Loads "TMDLs"

From <http://www.epa.gov/owow/tmdl/faq.html>

1. What is a TMDL?

A TMDL-or total maximum daily load-is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. In other words, it is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources, and includes a margin of safety and consideration of seasonal variations. In addition, a TMDL contains the reductions needed to meet water quality standards and allocates those reductions among the sources in the watershed.

2. Who is responsible for establishing and implementing TMDLs?

States, territories, and authorized tribes are responsible. If they fail to establish the TMDLs, EPA must do it. In some circumstances, EPA may establish TMDLs directly, for example, if a state requests us to, or if EPA determines that the TMDL is needed for interstate or boundary waterbodies.

3. How are TMDLs implemented?

TMDLs may be implemented in many ways: through state nonpoint source management programs; other federal laws and requirements, e.g., the 1996 Farm Bill, CZARA; state and local laws and ordinances; as well as local or regional watershed management programs. The proposed regulations would require that some "reasonable assurance" of implementation be included in the TMDL. Changes to the NPDES program will give EPA, in establishing a TMDL, the discretion to designate certain dischargers causing significant water quality impairment as point sources requiring an NPDES permit. Dischargers that may be designated include selected animal feeding operations, aquatic animal production facilities, and silvicultural operations.

4. How much does a TMDL cost?

The costs of establishing a TMDL can vary widely depending upon a number of factors: the size and complexity of the watershed; the number and type of pollutants; the mix of sources (point and nonpoint) and natural background conditions; as well as the degree to which the public is interested and involved in the TMDL process.

5. When do TMDLs need to be established?

TDMLs should be established over a 15 year timeframe with waterbodies determined to be higher priority waters established earlier in this timeframe. Priorities are based on the severity of the pollution and uses of the waterbody. The proposed changes would require that some impaired waters that are drinking water sources or have endangered species also be given priority.

6. TMDLs need to be established within 15 years, but when will the individual waters actually be cleaned up?

It is very difficult to estimate a specific timeframe. The amount of time that is required for a waterbody to reach water quality standards can vary considerably, depending upon the complexity of the pollutants, the uses of the land surrounding the waterbody, and the commitment of the community or upstream dischargers to reducing pollutants.

7. What is the status of TMDL litigation?

We have had about 45 legal action in 34 states. EPA is under court order or consent decree to ensure that TMDLs are established in many states. Three cases have been dismissed since 1993.

8. How are 303(d) lists established and who is responsible for establishing them?

States, territories, and authorized tribes establish the section 303(d) lists of impaired waters. EPA has 30 days in which to approve the lists or add waters to the state's lists, if the Agency determines the state's list is not complete. The section 303(d) list is a prioritized list of waters not meeting water quality standards. Among the proposed changes in the proposed TMDL regulations is whether state lists should be a comprehensive identification of all waterbodies exceeding water quality standards, whether from pollutants or pollution. The proposed changes suggest organizing the lists into four parts: 1) waters impaired by pollutants or by unknown causes; 2) waters impaired by pollution; 3) waters in which TMDLs have been done; and 4) waters expected to meet water quality standards by the next listing cycle. TMDLs would then be established for Part 1 pollutants only.

9. When do 303(d) lists need to be established?

Under current regulations, states identify their impaired or threatened waters and submit a list of these waters to EPA every two years. The proposed regulation ask for comment on how often the lists should be submitted to EPA.

10. What is the difference between the section 305(b) report and the section 303(d) lists?

Under section 305(b), states are required to monitor and assess the status of all waters and report this to Congress every two years. The section 305(b) report or National Water Quality Inventory presents states' findings on which waters are meeting water quality standards and which are not, while the section 303(d) list contains a prioritized list of impaired waters which need TMDLs. The information generated by states preparing section 305(b) reports is used to assist in the identification and priority ranking, while section 303(d) helps identify which waters need TMDLs. States supplement the section 305(b) assessments with other sources of water quality information when preparing the section 303(d) list of impaired waters needing TMDLs.

11. Are 40 percent of our nation's waters still not meeting water quality standards? Are all of those waters listed on the state 303(d) lists? If not, why not?

The 40 percent figure comes from the National Water Quality Inventory, which presents states' findings on which waters are meeting water quality standards, and which are not. The 40 percent is derived from the number of waters that states have actually assessed. Not all waters of the U.S. have been assessed. The number of impaired river and shoreline miles as well as the number of impaired acres of lakes and estuaries are essentially the same for the section 303(d) list -- 12.9 million lakes and estuary acres and 291,000 river and shoreline miles.

12. What is the relationship of the Section 303(d) lists and the Unified Watershed Assessments developed under the Clean Water Action Plan?

Unified watershed assessments were one of the key actions of the Clean Water Action Plan announced by the President in February, 1998. Unified watershed assessments were developed in the summer and fall of 1998 by states, tribes, and territories. Unified watershed assessments are intended to help states and tribes bring together a broad array of information on water quality and other resource conditions to identify watersheds where restoration activities and funding could be most effectively targeted. States and tribes worked with appropriate agencies and the public to identify these watersheds. The assessments were based on existing information and data, for example, state section 303(d) lists; priority areas and concerns identified through locally led conservation processes and USDA's State Technical Committees; National Forest Land and Resource Management Plans; and state drinking water source assessments.

13. What are the major causes of impairments in our waterbodies?

Both the 1996 and 1998 section 303(d) lists, as well as the section 305(b) report, reflect similar patterns with sediments, nutrients, and pathogens being the top three causes of impairment. Other causes include: dissolved oxygen, habitat and flow alterations, pH, metals, mercury (including fish advisories), and pesticides.

14. What is the relationship of TMDLs to the watershed approach?

Lasting solutions to water quality problems are best achieved by looking at all activities in a watershed. TMDLs are an important part of translating water quality standards into any point and nonpoint source load reductions needed to achieve healthy watersheds. EPA encourages watershed approaches in establishing TMDLs so that the cumulative and synergistic effects may be considered. TMDLs will be less expensive and more effective when bundled together to clean up an entire watershed. At the watershed level, TMDLs can structure innovative solutions, e.g., nutrient trading among wastewater dischargers and nonpoint sources; or the development of new point or nonpoint source technologies. The watershed action strategies developed in response to the Clean Water Action Plan are also a vital tool in meeting our clean water goals.

15. What are the major changes being proposed?

The proposed revisions would require states, territories, and authorized tribes to:

- Submit a more comprehensive list of waters threatened and impaired by both pollutants and pollution - TMDLs would then be established for pollutants only Set out schedules for establishing TMDLs over a 15 years period, starting with the highest priority waterbodies
- Provide more specific and consistent listing methodologies to EPA and make them subject to public review
- List waterbodies until water quality standards have been achieved
- Include an allowance for reasonably foreseeable increases in pollutant loadings to encourage "Smart Growth"
- Include an implementation plan in the TMDL, with on-the-ground actions -- for example NPDES permit conditions, best management practices, etc.-- to ensure that water quality standards are achieved in the timeframe.

16. Why are revisions to the TMDL, Water Quality Standards, and NPDES regulations being proposed?

There are a number of factors that have influenced the need for changes. Some of these include:

- Many Waterbodies Do Not Meet Water Quality Standards
- Approximately 21,000 waterbodies have been identified by the states as threatened or impaired. These waterbodies do not meet state water quality standards, including designated uses (i.e., fishing, swimming, and drinking water supplies).
- Federal Advisory Committee Report. In 1996, EPA set up a Federal Advisory Committee, composed of members from a broad spectrum of interests, to recommend ways to improve the effectiveness and efficiency of state, tribal, and EPA TMDL programs. The committee's report was issued in July, 1998, and has been used to guide proposed revisions to the TMDL regulations.

17. How do these proposed regulatory changes improve our ability to address polluted runoff?

The proposed changes will establish a framework for more expeditiously and effectively identifying and cleaning up the nation's impaired waters - those not meeting water quality standards. The regulatory changes would assure that: the public has more and better information about the health of their watersheds; states, territories, and authorized tribes have clearer direction and greater consistency as they identify their impaired waters and decide which to clean up first; and new tools are used to make sure that on-the-ground clean-up actions are implemented and clean water goals are achieved.

18. How much will the proposed changes to the TMDL regulation cost to implement?

We are in the process of developing an estimate for the nationwide costs of possible changes in the TMDL regulations, which is not yet publicly available. There will also be significant economic, social, and environmental benefits that the nation would gain by having safe and healthy waters. These benefits range from reduced treatment costs for drinking water to increased fishing and swimming opportunities and overall improved aquatic habitat.

19. What are the primary objectives of the proposed changes to the NPDES and Water Quality Standards regulations?

There are two primary objectives:

- To ensure reasonable further progress toward meeting water quality standards prior to TMDLs being established. This objective is aimed at improving the water quality of impaired waterbodies during the period between listing the waterbody on the Section 303(d) list and establishing the TMDL for that waterbody
- To help assure that TMDLs will be implemented and water quality standards will be achieved after TMDLs are in place.

20. How will reasonable further progress toward attaining water quality standards be achieved in impaired waterbodies in the absence of a TMDL?

Large new or significantly expanded discharges will be permitted to discharge to impaired waterbodies provided they offset their discharge by obtaining pollutant load reductions from an existing source(s) of the same pollutant in the waterbody. In states authorized to administer the NPDES program, EPA will have the discretion to object to and reissue expired permits which contain limits that are inconsistent with water quality standards where the state has failed to do so.

21. How will the changes to the NPDES program help to assure that TMDLs, once established, will be implemented?

States, when establishing a TMDL, must provide reasonable assurance that all affected sources will be able to meet their allocated load reductions. There may be instances where EPA, in approving a TMDL, will find that the state did not provide reasonable assurance that a particular nonpoint source will meet its allocated load reduction. In such a case, EPA will work with the state to provide that reasonable assurance. Where working with the state has failed and reasonable assurance was not provided, EPA would disapprove the TMDL and establish it itself. Changes to the NPDES program will give EPA, in establishing a TMDL, the discretion to designate certain dischargers causing significant water quality impairment as point sources requiring an NPDES permit. Dischargers that may be designated include selected animal feeding operations, aquatic animal production facilities, and silvicultural operations. In states authorized to administer the NPDES program, EPA will also have the discretion to object to and reissue expired permits which contain limits that are inconsistent with an established TMDL where the state has failed to do so.

22. What is an offset?

An offset is a form of effluent trading. It involves an increased discharge of a particular pollutant to a waterbody in exchange for a decreased discharge of that same pollutant to a waterbody. The end result would be a net environmental improvement in the water quality of an impaired waterbody.

23. From what source(s) can an offset be obtained and for how long must it be maintained?

An offset could be obtained from one or more existing point or nonpoint sources in the same waterbody. The offset must be maintained either until the TMDL has been established and reflected in the discharger's permit or until the discharger stops discharging.

24. In terms of issuing NPDES permits, will this rule significantly change the relationship between EPA and authorized states?

As indicated above, EPA is proposing several provisions that would allow the Agency, in authorized states, to issue permits to certain dischargers and to designate certain sources as needing an NPDES permit. These provisions, however, would only apply in limited circumstances. EPA anticipates that it would use this authority in only a small number of cases and only after significant consultation with the affected state.